Travel Bulletin: Earthquakes

Although several million earthquakes occur globally each year, most are too small to cause significant damage. Larger earthquakes (magnitude of approximately six or more) can be hazardous, exposing individuals and communities to the risk of harm or loss. They can also cause tsunamis and landslides.

Although the probability of experiencing a major earthquake when travelling overseas is low, earthquakes can and do occur. When travelling to an earthquake-prone area we recommend you familiarise yourself with the following information about what to do before, during and after an earthquake. In particular, we encourage you to ensure you have comprehensive travel insurance and to register your travel plans through the Smart Traveller Enrolment Program (STEP) before you leave the United States. The information you provide will help U.S. consular staff to contact or find you in the event of an emergency. For American residents living in earthquake-prone areas overseas, we provide additional information about how you can prepare thoroughly in order to protect yourself and your family.

Resilience – taking responsibility for your own and your family's preparedness to deal with emergencies, natural disasters or any form of crisis – is even more important when you are living and travelling overseas.

Earthquake-prone areas

GLOBAL SEISMIC HAZARD MAP

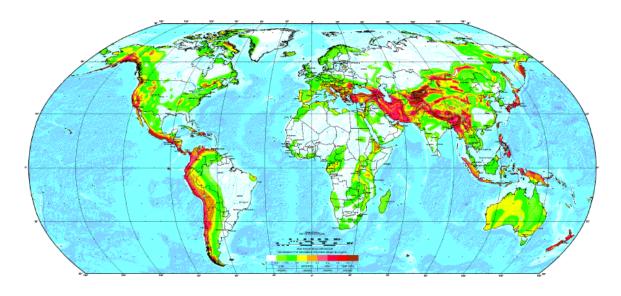


Figure 1 – Global seismic hazard map, from http://www.seismo.ethz.ch/static/GSHAP/

Travelling overseas to an earthquake prone region:

- 1. United States citizens should register their details with https://travelregistration.state.gov/ibrs/ui/
- 2. Ensure you have comprehensive travel insurance.
- 3. Locate the nearest <u>United States Embassy or Consulate General</u> Carry local emergency and embassy phone numbers in your wallet and programmed into your phone. Not every country is 000 or 911.
- 4. Familiarise yourself with local hotel or other advice on what to do in an earthquake
- **5.** Carry your travel documents at all times (i.e. passport, photo identification, etc.) or secure them in a safe, waterproof location.

Living overseas in an earthquake-prone zone

For United States residents living in earthquake-prone areas overseas, we recommend you plan ahead, including identifying a room in a house or workplace that can be used as a shelter following a disaster. Water, food, and clean air are vital when sheltering in place.

Have a basic emergency supply kit available at all times, including items for individual needs such as medications and infant formula.

Some countries provide comprehensive advice on how to prepare for an earthquake, including how to prepare basic emergency kits and emergency plans, for example:

United States: http://www.ready.gov/earthquakes

New Zealand: http://www.getthru.govt.nz/web/GetThru.nsf

Canada: http://www.getprepared.gc.ca/index-eng.aspx

United Kingdom:

 $\underline{http://www.direct.gov.uk/en/HomeAndCommunity/InYourHome/Dealingwithemergencies/Preparingforemergencies/DG_176651}$

You should follow the advice of local emergency services in the country you are in. If they do not provide advice as comprehensive as those above, then follow them.

Keeping in mind that the earthquake risk in many countries overseas is higher than that in the United States, you should at a minimum have the same preparedness while travelling or living overseas that is recommended in the United States.

Shelter in place

Taking appropriate shelter is critical in times of disaster. There may be situations where it is safer to shelter inside rather than evacuate a building. It may also be some days before authorities are able to assist you. Follow instructions from local authorities. If these instructions are not available, use your judgment based on the information at hand.

What to expect when a major earthquake occurs

If a major earthquake occurs, it is possible that the following will happen:

- There may be a very loud noise like a passing train.
- Buildings and the ground may shake violently for between 15 and 90 seconds, sometimes even longer.
- Weak building facades may collapse into the streets, glass windows and panels may shatter, roof tiles may be dislodged and so on.
- It may be hard to stand up or walk due to the ground shaking; in severe cases the movement may be sufficient to throw you to the ground.
- Electricity, water and gas may fail or be switched off.
- Sprinkler systems and fire alarms may be triggered.
- Telephone systems (landlines and mobile) may shut down for significant periods after an earthquake.
- A tsunami may occur in coastal areas or in areas bordering large lakes. Take note of any tsunami warnings issued following an earthquake.
- Be prepared for aftershocks; these may be almost as strong as the first tremor. Aftershocks can occur in the minutes, days, weeks and even months following an earthquake.

What to do during an earthquake?

If you are inside when the shaking starts:

- In most situations you will reduce your chance of injury from falling objects if you drop, cover and hold on. It is important you move as little as possible during an earthquake. Stay calm.
- If you are in bed, stay there, curl up and hold on. Protect your head with a pillow.
- Stay away from windows to avoid being injured by shattered glass.
- Stay indoors until the shaking stops and you are sure it is safe to exit. Most deaths or injuries from an earthquake occur when individuals attempt to move prematurely and are struck by falling or flying objects. If you must leave the building after the shaking stops, use stairs rather than an elevator in case there are aftershocks, power outages or other damage.
- Be aware that fire alarms and sprinkler systems frequently go off in buildings during an earthquake, even if there is no fire.

If you are outside when the shaking starts:

- Find a clear spot and lie on the ground. Stay there until the shaking stops (away from buildings, power lines, trees, streetlights). Stay calm.
- If you are in a vehicle, pull over to a clear location and stop. Avoid bridges, overpasses and power lines if possible. Stay inside with your seatbelt fastened until

- the shaking stops. Then, drive carefully, avoiding bridges and ramps that may have been damaged.
- If a power line falls on your vehicle, do not get out. Wait for assistance.
- If you are in a mountainous area or near unstable slopes or cliffs, be alert for falling rocks and other debris. Landslides can be triggered by earthquakes.

What should I do after a major earthquake?

- Keep calm.
- After a major earthquake, the disaster may continue. Expect and prepare for potential aftershocks, landslides or if in a coastal area a tsunami.
- Each time you feel an aftershock, drop, cover and hold on.
- Check yourself for injuries and seek first aid, if necessary, before helping injured or trapped persons.
- Put on long pants, a long-sleeved shirt and sturdy shoes to protect against injury from broken objects.
- Look for and if possible extinguish small fires. Fire is the most common hazard after an earthquake.
- Clean up any spilled medications, bleach and flammable liquids immediately.
- Listen to a portable, battery-operated or hand-crank radio for updated emergency information and instructions.
- Follow the advice of the local authorities and emergency services. Local authorities bear primary responsibility for providing assistance during a crisis to people living or traveling within their jurisdictions.
- After checking that you and any travelling companions are safe, contact family members and friends in New Zealand and America to let them know you are okay
- Note that it may be important that you conserve battery power in your mobile or smart
 phone as much as possible. Send text messages where possible, turn off services when
 not required.
- If you require consular assistance, contact the relevant <u>U.S. Embassy or Consulate</u>. Alternatively, you can contact the 24-hour **U.S. State Department Emergency Number:** +1-202-501-4444.
- Open closet and cabinet doors carefully as contents may have shifted.
- Watch out for fallen power lines or broken gas lines and stay out of damaged areas.
- Stay out of damaged buildings.
- Be careful when driving after an earthquake and anticipate traffic light outages.
- Be wary of food hygiene following an earthquake, particularly in warm climates. Food (principally meat) sold in restaurants or stalls may not have been refrigerated or stored safely after an earthquake. Only eat food that you are confident is still fresh.

More information

Geonet monitors, analyses and reports on earthquakes within New Zealand. The <u>US</u> Geological Survey also provides information on earthquake loss reduction, including hazard and risk assessment, and comprehensive real-time earthquake monitoring.